


PLUMBBOB PHOTOGRAPHS

PHOTOGRAPH	PHOTO NUMBER	DESCRIPTION
 57-001	PLU-57-001	1957 - Rear Admiral Frank O'Beirne, U.S. Navy, Commander, Field Command, AFSWP, Sandia Base,
 57-002	PLU-57-002	1957 - Colonel Herschell E. Parsons, U.S. Air Force, Deputy Test Manager for Military Matters, Operation Plumbbob.



57-003

PLU-57-003

06/21/57 - Col. H. E. Parsons, USAF, left, Deputy Manager for military matters during the current atomi series and Col. K. D. Coleman, USAF, Dir. Of the DC Test Group, are shown on a recent inspection of the military effects display area in Frenchman Flat in preparation for the next scheduled test, not set for Sun 6/23/57. The bridge in the background is a survivor fr military effects tests conducted in Upshot-Knothole ir 1953, & will be used again for advanced blast studies. extensive array of other military effects experiments i being made ready for the detonation. Cols. Parsons & Coleman are members of the Field Command, Armed Forces Special Weapons Project at Sandia Base, NM.



57-004

PLU-57-004

1957 - Herbert F. York, LLNL, UCRL - 3403



57-005

PLU-57-005

1957 - Duane Sewell, LLNL, UCRL - 2251



57-006

PLU-57-006

1957 - A. Vay Shelton, LLNL, UCRL - 8061



57-007

PLU-57-007

1957 - R. A. Bice



57-008

PLU-57-008

1957 - Don B. Shuster - Don B. Shuster of Sandia Corporation's (Albuquerque, N.M.) Full Scale Test Department, is Associate Test Director of the Nevada Organization during the current 1957 test series.



57-009

PLU-57-009

1957 - Alvin C. Graves, LANL, LAT #1302



57-010

PLU-57-010

1957 - William E. Ogle, LANL, LAT #1310



57-011

PLU-57-011

1957 - James E. Reeves Test Manager



57-012

PLU-57-012

1957 - Dr. Gerald W. Johnson Test Director



57-013

PLU-57-013

1957 - Dr. James H. Scott, Director of Sandia Corporation's (Albuquerque, NM) Full Scale Test Division 1, is Sandia Test Group Director for the Nevada Test Organization during the current 1957 test series.



57-014




PLU-57-014

1957 - NEVADA TEST SITE -- The entrance and base of the air intake stack of the French circular shelter are shown relatively undamaged and in operating condition after withstanding the blast of SMOKY, first nuclear detonation from a 700-foot tower.



PLU-57-015

1957 - Harry Keller

57-015		
 <p>57-016</p>	PLU-57-016	1957 - Col. Parsons & Col. Coleman at small shelter structure.
 <p>57-017</p>	PLU-57-017	June 21, 1957 - NEVADA TEST SITE -- June 21, 1957 -- Colonel H.E. Parsons, USAF, left, Deputy Manager for military matters during the current atomic test series and Colonel K.D. Coleman, USAF, Director of the DOD Test Group, are shown on a recent inspection of the military effects display area in Frenchman Flat in preparation for the next scheduled test, now set for Sunday, June 23, 1957. The bridge in the background is a survivor from military effects test conducted in operation Upshot-Knothole in 1953, and will be used again for advanced blast studies. An extensive array of other military effects experiments is being made ready for the detonation. Colonel Parsons and Colonel Coleman are members of the Field Command, Armed Forces Special Weapons Project at Sandia Base, NM.
 <p>57-018</p>	PLU-57-018	May 31, 1957 - NEVADA TEST SITE -- Roger J. Pederson, Timing and Firing Engineer, Edgerton in control room at the Control Point.



57-019

PLU-57-019

May 31, 1957 - NEVADA TEST SITE -- Herbert Gri
Director of Timing and Firing EG&G, Inc. Seated at f
console in control room.



57-020

PLU-57-020




1957 - NEVADA TEST SITE -- A view of the 500 fo
tower used in conjunction with the DIABLO Event at
Nevada Test Site








57-021


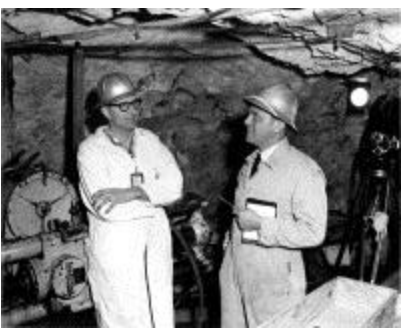

PLU-57-021



August 31, 1957 - NEVADA TEST SITE -- SMOKY
Brush fires burn on hillsides to the left of SMOKY, th
15th full-scale atomic detonation of Operation Plumb
The cloud is shown as it begins to separate from the s


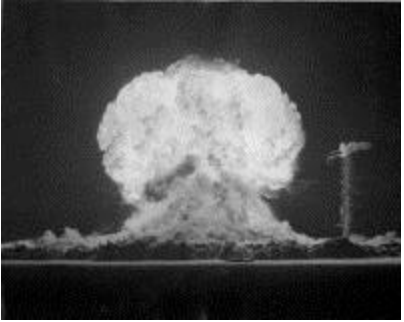
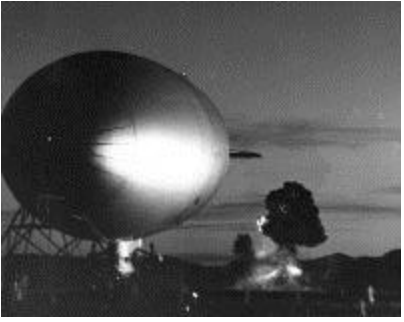

 <p data-bbox="391 583 483 615">57-022</p>	<p data-bbox="683 289 844 321">PLU-57-022</p>	<p data-bbox="889 289 1580 867">1957 - NEVADA TEST SITE -- A group of French military and civilian scientists visited Nevada Test Site Wednesday through Friday for orientation in nuclear effects. Some of the visitors are shown inspecting one of the underground shelters which was tested for French defense in connection with the August 31, 1957 SMO Event in Yucca Flat. Shown above, from left to right: Deal, AEC Washington; George Spiegel, Department State, Washington; Captain J. Rosen, AEC Washington; Dr. Thomas Easton, Department of Defense-Washington; General Charles Ailleret, France; Medicine Commandant Andre Auguste Aerberhardt, France (head down, looking at ground); Colonel Henri Debrabant, France; and Pierre Leon Billaud, France. (Two individuals barely seen by Gen. Ailleret and Dr. Aerberhardt are Nevada Test Site personnel who were not identified).</p>
 <p data-bbox="391 1255 483 1287">57-023</p>	<p data-bbox="683 989 844 1020">PLU-57-023</p>	<p data-bbox="889 989 1580 1062">February 1968, LRL # N-25799, Glenn Seaborg (Not Plumbbob Photograph)</p>
 <p data-bbox="391 1686 483 1717">57-024</p>	<p data-bbox="683 1409 844 1440">PLU-57-024</p>	<p data-bbox="889 1409 1580 1482">February 1968, LRL # N-25804, Glenn Seaborg (Not Plumbbob Photograph)</p>




 <p>57-025</p>	<p>PLU-57-025</p>	<p>February 1968, LRL # N-25757, Glenn Seaborg (Not Plumbbob Photograph)</p>
 <p>57-026</p>	<p>PLU-57-026</p>	<p>February 1968, LRL # N-25806, Glenn Seaborg (Not Plumbbob Photograph)</p>
 <p>57-027</p>	<p>PLU-57-027</p>	<p>February 1968, LRL # N-25805, Glenn Seaborg (Not Plumbbob Photograph)</p>
 <p>57-028</p>	<p>PLU-57-028</p>	<p>May 28, 1957 - NEVADA TEST SITE -- NATO observers observing BOLTZMANN (May 28, 1957) t at the Nevada Test Site</p>

 <p>57-029</p>	<p>PLU-57-029</p>	<p>May 14, 1957 - CAMP DESERT ROCK -- Press Conference held May 14, 1957 by Brig. General Walt Jensen, Deputy Exercise Director Camp Desert Rock and VIII. Left to right: Richard G. Elliott Director of Information AEC; Brig General Walter A. Jensen Commander of Desert Rock and Col. Chester H. Dun Executive Officer of Camp Desert Rock, NV.</p>
 <p>57-030</p>	<p>PLU-57-030</p>	<p>June 22, 1957 - DESERT RUN -- Leathernecks of the Marine Corps Provisional Atomic Exercise Brigade run out morning exercises with a mile run at Camp Desert Rock, NV. The Brigade arrived this week from Camp Pendleton, CA preparatory to their air-ground exercise connection with an atomic test at the Nevada Test Site now scheduled for June 27, 1957. Physical conditioning is an important part of the extensive-training schedule for atomic Marines at their desert camp.</p>
 <p>57-031</p>	<p>PLU-57-031</p>	<p>July 18, 1957 - LAS VEGAS, NV, - NEVADA TEST SITE - JOHN Event -- Five Air Force officers will be observers at Ground Zero during the explosion of the air-to-air live atomic rocket ever fixed from a manned aircraft, when they stand directly under the test scheduled for early Friday morning at the Nevada Test Site. The officers, all members of the Continental Air Defense Command and based in Colorado Springs, CO., will stand directly under the burst sans helmets, hats, caps, goggles or protective clothing to illustrate that the civil population need fear no harmful effects were it necessary to use the atomic rocket in a tactical situation. The officers, left to right, are Colonel Sidney Bruce of Durango, CO; Lt. Colonel Frank P. Ball, Washington, DC; Majors Norman Bodinger, Ridgefield, NJ; Donald Luttrell, Dallas, TX and John F. Hughes, McKeesport, Pa.</p>

 <p>57-032</p>	<p>PLU-57-032</p>	<p>1957 - NERVE CENTER -- Captain Clarke A. Rhyke Galesburg, IL and Lt. Jerry D. Hauer, Dayton, OH, are shown in the nerve center of the Direct Air Support C from Marine Air Support Squadron 3, 3rd Marine Air Wing. This small mobile unit will control Marine Cor jets and helicopters during full scale atomic exercises scheduled for tomorrow at the Nevada Test Site. The center will maintain constant air support and shuttling service for assaulting infantrymen of the Fourth Marine Corps Provisional Atomic Exercise Brigade during the maneuver.</p>
	<p>PLU-57-033</p>	<p>NO PHOTO.</p>
 <p>57-034</p>	<p>PLU-57-034</p>	<p>1957 - Mr. Arthur Morse of the CBS TV Program, "S Now," interviewing Mr. Dale Nielsen, General Manager Nevada of the University of California radiation Lab. Pictured taken on location in the RAINIER tunnel Diagnostics Room.</p>
 <p>57-035</p>	<p>PLU-57-035</p>	<p>May 31, 1957 -- Laboratories mice, in special aluminum and plastic cages, are placed in an aluminum blast shield box. Dr. Donald Ott (right) of the Bio-Medical Research Group at Los Alamos NM Scientific Laboratory, is required to seal the box as Miss Sara Beth Hawkins, also of Los Alamos, places the second exposure cage. The blast resistant box is ventilated by a fan in the pipe (in background). Battery (out of view to the left) operates the fan. The mice, protected against blast, heat and shock, were placed at various distances from ground zero during FRANKLIN test exposure to radiation.</p> <p>(12-OTL-5/31/57)</p>

 <p>57-036</p>	<p>PLU-57-036</p>	<p>MAY 1, 1957 - NEVADA TEST SITE -- MEDICAL EFFECTS TEST PIGS: Swine, which are to undergo medical care experiments during Operation Plumbbot photographed in the pig pens at Pork Sheraton, French Flat, by Lookout Mountain Laboratory cameramen. (1 OTI-5/1/57)</p>
 <p>57-037</p>	<p>PLU-57-037</p>	<p>1957 - NEVADA TEST SITE -- A 25 lb. Shoat is removed by S/Sgt. N. Morgan from an aluminum barrel used during FRANKLIN's medical effects test. The containers are positioned at various distances from ground zero to measure radiation doses. Sgt. Morgan is a member of the 47th Field Hospital, Ft. Sam Houston, near San Antonio, TX. The shoat is one of 1200 swine penned at Camp Mercury. The pigs purchased in the Trimble, NM area, were bred especially for the test, out of one group of Hampshire & Landrace sows. The swine, perhaps the pampered pigs in America today, cost \$25 a head. They receive highly specialized care -- the best food, quarters and medical care. Project Director for the test is Lt. C. G. M. McDonnell, Medical Corps, of the Office of the Surgeon General, US Army.</p>
 <p>57-038</p>	<p>PLU-57-038</p>	<p>PLUMBBOB/BOLTZMANN - May 28, 1957 - NEVADA TEST SITE -- BOLTZMANN fireball, May 28, 1957. photographed 11 miles from ground zero. (XX-63)</p>

 <p>57-039</p>	<p>PLU-57-039</p>	<p>PLUMBBOB/BOLTZMANN - May 28, 1957 - NEV. TEST SITE -- BOLTZMANN fireball, May 28, 1957. photographed 11 miles from ground zero.</p>
 <p>57-040</p>	<p>PLU-57-040</p>	<p>PLUMBBOB/BOLTZMANN - May 28, 1957 - NEV. TEST SITE -- BOLTZMANN Event at Nevada Test S</p>
 <p>57-041</p>	<p>PLU-57-041</p>	<p>PLUMBBOB/FRANKLIN - JUNE 2, 1957 - NEVAD TEST SITE -- FRANKLIN fireball begins to fade as 1 rays of early light and flare illuminate Navy blimp mo nearby. (negative at ALOO)</p>
	<p>PLU-57-042</p>	<p>PLUMBBOB/FRANKLIN - June 2. 1957 - NEVADA TEST SITE -- Initial flash of FRANKLIN with ZSC-ship from Lakehurst Naval Air Station, Lakehurst, NJ moored nearby to measure shock wave effects.</p>

57-042		
 <p>57-043</p>	PLU-57-043	PLUMBBOB/FRANKLIN - June 2, 1957 - NEVADA TEST SITE -- FRANKLIN cloud and blimp illuminated by flare 6/2/57.
 <p>57-044</p>	PLU-57-044	PLUMBBOB/LASSEN - June 5, 1957 - NEVADA TEST SITE -- A photo of LASSEN Cloud detonation on 6/5 at the Nevada Test Site
 <p>57-045</p>	PLU-57-045	PLUMBBOB/LASSEN - LAS VEGAS, NV, June 5 1957 - NEVADA TEST SITE -- Atomic cloud resulting from detonation of the first atomic device to be fired. A captive balloon is shown 5 seconds after detonation. Test was fired from a height of 500 feet 40 minutes before dawn, at 4:45 a.m. in Yucca Flat. Fallout from the test was announced as well below nominal in yield, was recorded only in the immediate test area. Helium-filled balloon 67 feet in diameter, held in place by four steel cables, winches for which are remotely controlled. Photo was taken from aircraft 5 miles from Ground Zero, with 2 second exposure at F-8.



57-046

PLU-57-046

The PRISCILLA Event, conducted at the Nevada Test Site, June 24, 1957, was a 37 kiloton device exploded from a balloon. (XX-10)



57-047

PLU-57-047

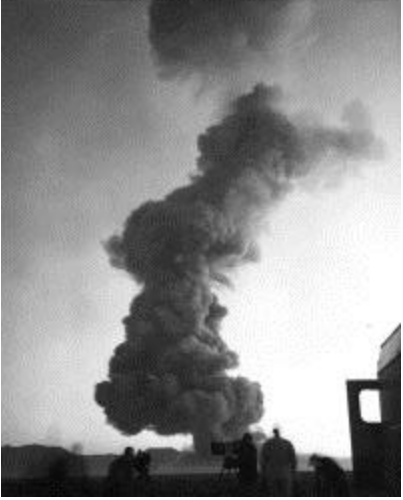
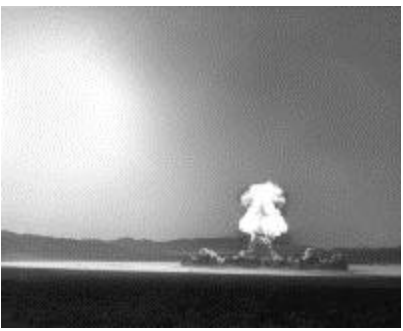
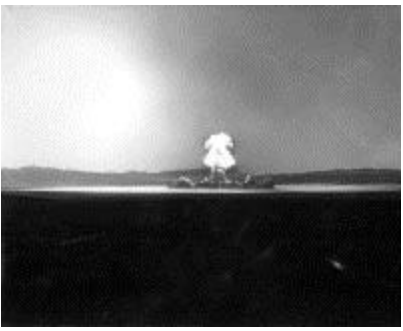
PLUMBBOB/WILSON - June 18, 1957 - NEVADA TEST SITE -- The fireball from the WILSON Event, a.m. PDT, June 18, 1957, Yucca Flat, was photographed from a distance of about five miles, within seconds of detonation.

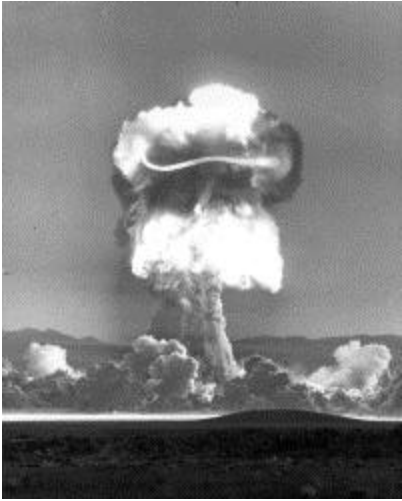


57-048

PLU-57-048

PLUMBBOB/WILSON - June 18, 1957 - NEVADA TEST SITE -- The fireball from the WILSON Event

 <p data-bbox="391 747 483 779">57-049</p>	<p data-bbox="683 289 844 321">PLU-57-049</p>	<p data-bbox="889 289 1589 468">PLUMBBOB/WILSON - June 18, 1957 - NEVADA TEST SITE -- A few minutes after detonation, the cloud from the WILSON Event, fired at 4:45 a.m. PDT, June 1957, rises high over Yucca Flat. Personnel in foreground are members of the camera team.</p>
 <p data-bbox="391 1180 483 1211">57-050</p>	<p data-bbox="683 898 844 930">PLU-57-050</p>	<p data-bbox="889 898 1589 1045">PLUMBBOB/PRISCILLA - June 24, 1957 - NEVADA TEST SITE -- PRISCILLA fireball pictured at distance about 12 miles from Ground Zero in Frenchman Flat (sun in left background). (46-OTI-6-24-57)</p>
 <p data-bbox="391 1617 483 1648">57-051</p>	<p data-bbox="683 1333 844 1365">PLU-57-051</p>	<p data-bbox="889 1333 1589 1438">PLUMBBOB/PRISCILLA - June 24, 1957 - NEVADA TEST SITE -- The PRISCILLA Event of 6/24/57 at the Nevada Test Site (46-OTI-6/24/57)</p>



57-052

PLU-57-052

PLUMBBOB/PRISCILLA - June 24, 1957 - NEVAD
TEST SITE -- The Fireball of the PRISCILLA Event
on 6/24/57 as a part of the Operation Plumbbob series
(43-OTI)



57-053

PLU-57-053

PLUMBBOB/PRISCILLA - June 24, 1957 - NEVAD
TEST SITE -- The mushroom cloud rising above
Frenchman Flat dry lake after the June 24, 1957
detonation. (44-OTI-6/24/57)



57-054

PLU-57-054

PLUMBBOB/PRISCILLA - June 24, 1957 - NEVAD
TEST SITE (44-OTI-6/24/57)



57-055

PLU-57-055





PLUMBBOB/PRISCILLA - June 24, 1957 - NEVAD
TEST SITE -- About one half hour after 6:30 a.m. Jun
24, 1957 PRISCILLA Event, at Frenchman Flat, the
mushroom cloud is being blown off to almost due eas
is rapidly dispersing into an air mass. (45-OTI-6/24/5









57-056




PLU-57-056



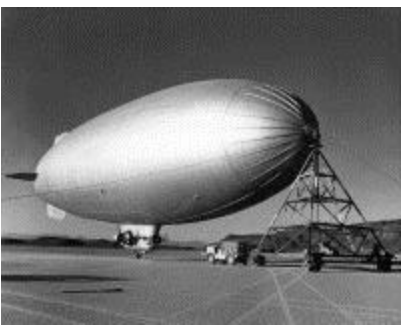

PLUMBBOB/HOOD - July 5, 1957 - NEVADA TES
SITE -- The fireball from the HOOD Event, sixth atom
detonation during Operation Plumbbob, flashes across
Yucca Flat during pre-dawn minutes of Friday, July 5
1957 (66-OTI)



 <p>57-057</p>	<p>PLU-57-057</p>	<p>PLUMBBOB/HOOD - July 5, 1957 - NEVADA TEST SITE -- The HOOD Test, conducted at the Nevada Test Site on July 5, 1957, was a 74-kiloton device exploded on a balloon.(XX-03)</p>
 <p>57-058</p>	<p>PLU-57-058</p>	<p>PLUMBBOB/HOOD - July 5, 1957 - NEVADA TEST SITE -- HOOD's mushroom cloud begins to form above Yucca Flat. The Friday, July 5, 1957, above nominal 1000 ft sent a thermal wave across the desert, igniting bushes and other growth on nearby foothills just to the right of the dust cloud near the surface of the ground. (67-OTI)</p>
 <p>57-059</p>	<p>PLU-57-059</p>	<p>PLUMBBOB/DIABLO - July 15, 1957 - NEVADA TEST SITE -- DIABLO fireball July 15, 1957. (73-OTI-7-1)</p>
	<p>PLU-57-060</p>	<p>PLUMBBOB/DIABLO - July 15, 1957 - NEVADA TEST SITE -- Ionization glow surrounds the cooling fireball of the DIABLO Event, fired in Yucca Flat at 4:30 a.m. Monday, July 15, 1957. (74-OTI-7-15-57)</p>



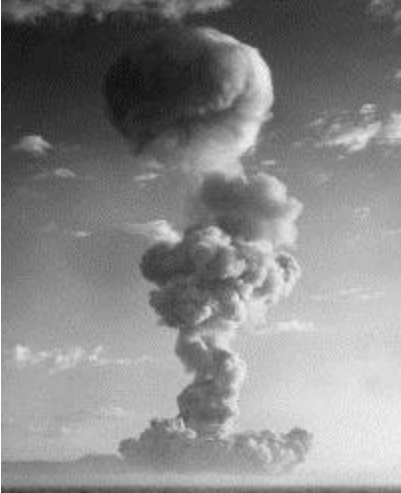
57-060		
 <p>57-061</p>	PLU-057-061	PLUMBBOB/DIABLO - July 15, 1957 - NEVADA TEST SITE -- DIABLO was fired on July 15, 1957, at the Nevada Test Site from a 500-foot tower. It had a yield of 17-kilotons. (XX-015)
 <p>57-062</p>	PLU-057-062	PLUMBBOB/JOHN - July 19, 1957 - LAS VEGAS, NEVADA TEST SITE -- The detonation of the rocket produced a large smoke ring. The flash was seen at distances in excess of 100 miles from the Nevada Test Site. The JOHN Event was the eighth full scale nuclear test of the current nuclear test series held by the AEC and Department of Defense. Test officials announced its designed yield as well below nominal. (LML 65/7207)
 <p>57-063</p>	PLU-057-063	PLUMBBOB/JOHN - July 19, 1957 - NEVADA TEST SITE -- Fireball of July 19, 1957 atomic test above Yucca Flat, as it was photographed approximately five miles from the detonation. (75-OTI-7/19/57)




 <p>57-064</p>	<p>PLU-57-064</p>	<p>PLUMBBOB/JOHN - July 19, 1957 - NEVADA TEST SITE -- Fireball of July 19, 1957 atomic test above Yucca Flat, as it was photographed approximately 5 miles from the detonation. (30-65 FPE 2A-6)</p>
 <p>57-064C</p>	<p>PLU-57-064</p>	<p>PLUMBBOB/JOHN - July 19, 1957 - NEVADA TEST SITE -- Fireball of July 19, 1957 atomic test above Yucca Flat, as it was photographed approximately 5 miles from the detonation. (30-65 FPE 2A-6)</p>
	<p>PLU-57-065</p>	<p>PLUMBBOB/JOHN - July 19, 1957 - NEVADA TEST SITE -- Smoke-ring cloud of the July 19 air-to-air rocket atomic detonation above Yucca Flat. The picture was made about five miles from the detonation. (76-OTI-7/19/57)</p>


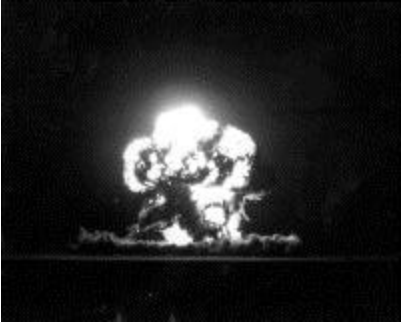

57-065		
 <p>57-066</p>	PLU-57-066	<p>PLUMBBOB/JOHN - July 19, 1957 - LAS VEGAS, NEVADA TEST SITE -- The flash of the exploding nuclear warhead of the air-to-air rocket (JOHN Event) shown as a bright sun in the eastern sky at 7:30 a.m. July 19, 1957 at Indian Springs Air Force Base, some 30 n away from the point of detonation. A Scorpion, sister of the launching aircraft, is in the foreground. Test officials said that the operation was fully successful, including accuracy in achieving detonation at the desired point in space, and including gathering of data on various weapons effects experiments. No fallout, other than negligible traces, was reported by off-site AEC radiological monitors. (65/7207-5)</p>
No file	PLU-57-067	NO PHOTO
 <p>57-068</p>	PLU-57-068	<p>PLUMBBOB/JOHN - July 19, 1957 - LAS VEGAS, NEVADA TEST SITE -- JOHN Event - A plume of rocket smoke partially obscures the F-89 Scorpion at the instant of firing. This signaled the first time in aviation history that a live nuclear weapon was fired by a fighter aircraft at a target. (65/7207-2)</p>
 <p>57-069</p>	PLU-57-069	<p>PLUMBBOB/JOHN - July 19, 1957 - LAS VEGAS, NEVADA TEST SITE -- JOHN Event -- The live nuclear rocket accelerates past the launching Scorpion at an undisclosed speed. The rocket project was begun in early 1954 and code-named Genie by the Air Research and Development Command. (65/7207-3)</p>




 <p>57-070</p>	<p>PLU-57-070</p>	<p>PLUMBBOB/SCORPION - 1957 - LAS VEGAS, NV NEVADA TEST SITE -- The launching Scorpion, still enveloped in the rocket's smoke trail, is shown banking about 70 degrees to evade the forthcoming nuclear explosion. The atomic rocket is now far past the Scorpion to the right of the photograph. (65/7207-4)</p>
 <p>57-071</p>	<p>PLU-57-071</p>	<p>PLUMBBOB/T-33 AIRCRAFT - 1957 - NEVADA TEST SITE -- Lieutenant General Joseph H. Atkinson, Commander of the Air Defense Command, used an aircraft similar to this T-33 jet trainer to make his flight through the atomic cloud at the Indian Springs test cell in Nevada. The nuclear blast is part of Operation Plumbbob currently being run in the Nevada desert.</p>
 <p>57-072</p>	<p>PLU-57-072</p>	<p>PLUMBBOB/KEPLER - July 24, 1957 - NEVADA TEST SITE -- Navy air ship, ZSG-1, ties up at morning platform in Yucca Flat, having just arrived from Lakehurst (NJ) Naval Air Station to prepare for tests during the Frank Event. High speed photography, lit by the glare of the fireball and flares, will record effects on the blimp. (1 OTI-5-30-57)</p>
	<p>PLU-57-073</p>	<p>PLUMBBOB/KEPLER - July 24, 1957 - NEVADA TEST SITE -- The fireball of test KEPLER detonated July 24, 1957. (78-OTI)</p>

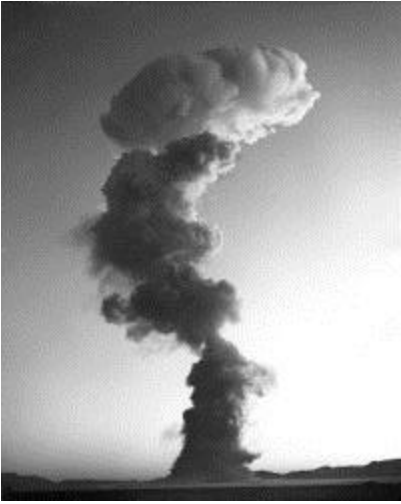


57-073		
 <p data-bbox="386 646 483 678">57-074</p>	PLU-57-074	<p>PLUMBBOB/KEPLER - July 24, 1957 - NEVADA TEST SITE -- KEPLER detonated July 24, 1957 at the Nevada Test Site</p>
 <p data-bbox="386 1260 483 1291">57-075</p>	PLU-57-075	<p>PLUMBBOB/KEPLER - July 24, 1957 - NEVADA TEST SITE -- Cloud formation of KEPLER, the ninth atomic test of the Summer 1957 test series, rises over Yucca Flat. (79-OTI)</p>
 <p data-bbox="386 1696 483 1728">57-076</p>	PLU-57-076	<p>PLUMBBOB/KEPLER - July 24, 1957 - NEVADA TEST SITE -- Representatives of five European nations watched the cloud formed by an atomic detonation July 24, 1957 over Yucca Flat. Observers (seated, left to right) of the KEPLER Event, ninth in Operation Plumbbob, are: Major General F.R.G. Matthews, of the United Kingdom; Captain Michel Saunois, of France; Mr. Luigi Pianese, of Italy; and Mr. Sait Koksai, of Turkey. (80-OTI)</p>


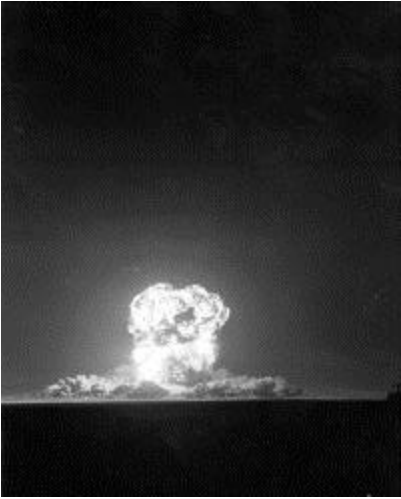

 <p>57-077</p>	<p>PLU-57-077</p>	<p>PLUMBBOB/OWENS - July 25, 1957 - NEVADA T SITE -- OWENS Fireball -- Nevada Test Site, July 25 1957. The OWENS fireball as it boiled over the Neva desert. The test was fired at 6:30 a.m. today at an altit of 500 feet. Device was suspended from a plastic ball 67 feet in diameter. (81-OTI-7/25/57) (30-65 FPE-3A</p>
 <p>57-077C</p>	<p>PLU-57-077</p>	<p>PLUMBBOB/OWENS - July 25, 1957 - NEVADA T SITE -- OWENS Fireball -- Nevada Test Site, July 25 1957. The OWENS fireball as it boiled over the Neva desert. The test was fired at 6:30 a.m. today at an altit of 500 feet. Device was suspended from a plastic ball 67 feet in diameter. (81-OTI-7/25/57) (30-65 FPE-3A</p>
 <p>57-078</p>	<p>PLU-57-078</p>	<p>PLUMBBOB/OWENS - July 25, 1957 - NEVADA T SITE -- OWENS Cloud, Nevada Test Site, July 25, 1957. The OWENS cloud in middle stages of its surge to 35 feet above Yucca Flat, showing early phase of ice cap forming over cloud top. The test was fired at 6:30 a.m today, as the tenth in the current full-scale series. (82-07/25/57)</p>


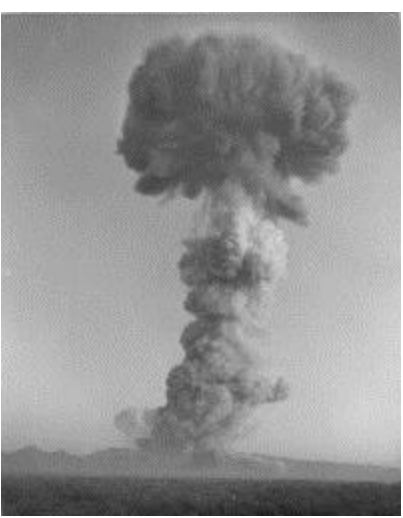

 <p>57-079</p>	<p>PLU-57-079</p>	<p>PLUMBBOB/STOKES - August 07, 1957 - NEVADA TEST SITE -- STOKES Fireball - The eleventh nuclear detonation of the Plumbbob series lights Yucca Flat at 5:25 a.m. Wednesday, August 7, 1957. STOKES, codename for the event, was fired from a balloon at an altitude of 1500 feet. (83-OTI-8/7/57)</p>
 <p>57-080</p>	<p>PLU-57-080</p>	<p>PLUMBBOB/STOKES - August 07, 1957 - NEVADA TEST SITE -- The cloud from STOKES, fired at 5:25 a.m., August 7, 1957, rises above Yucca Flat, breaking from the stem before starting to dissipate. The balloon was detonated at 1500 feet. (AEC-57-5805)</p>
 <p>57-081</p>	<p>PLU-57-081</p>	<p>PLUMBBOB/STOKES/BLIMP - August 07, 1957 - NEVADA TEST SITE -- The tail, or After section of U.S. Navy Blimp is shown with the STOKES cloud in background. Blimp was in temporary free flight in excess of five miles from ground zero when collapsed by the shock wave from the blast. The airship was unmanned and was used in military effects experiments on blast and Navy personnel on the ground in the vicinity of the experimental area were unhurt. On ground to the left are remains of the forward section. (85-OTI-8/7/57)</p>



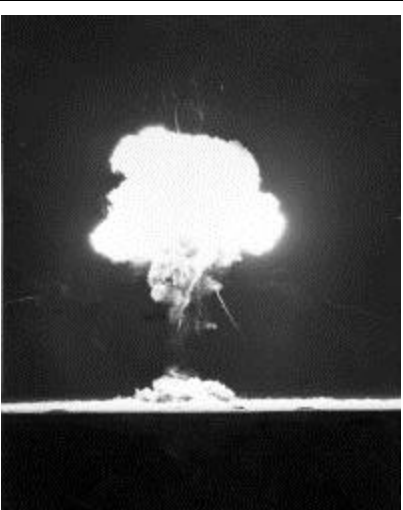
 <p>57-082</p>	<p>PLU-57-082</p>	<p>PLUMBBOB/SHASTA - August 18, 1957 - NEVADA TEST SITE -- The 500-foot tower test SHASTA was detonated at the NEVADA TEST SITE on August 18, 1957. (30-65 FPE 36-3)</p>
 <p>57-083</p>	<p>PLU-57-083</p>	<p>PLUMBBOB/SHASTA - August 18, 1957 - NEVADA TEST SITE -- SHASTA, 12th full-scale nuclear detonation of Operation Plumbbob, was fired from a 500-foot tower in Yucca Flat after 19 postponements from ready date of July 30. (95-OTI-08/18/57)</p>
 <p>57-084</p>	<p>PLU-57-084</p>	<p>PLUMBBOB/SHASTA - August 18, 1957 - NEVADA TEST SITE -- SHASTA Detonation - Lookout Mountain Lab (30-65 FPE 3C-1)</p>


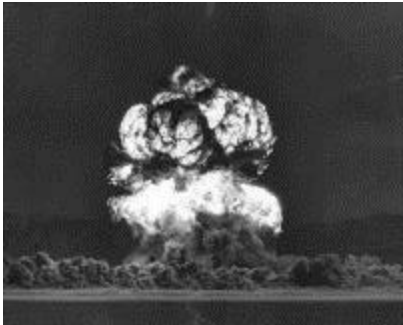

 <p data-bbox="391 751 483 779">57-085</p>	<p data-bbox="683 289 846 317">PLU-57-085</p>	<p data-bbox="889 289 1576 541">PLUMBBOB/SHASTA - August 18, 1957 - NEVADA TEST SITE -- SHASTA CLOUD - Nevada Test Site, August 18, 1957 -- Partially blacked out by pre-dawn darkness, the SHASTA cloud at its peak retains some the glow of the fireball, following detonation from a 5 foot tower in Yucca Flat. The test was postponed 19 days after a ready date of July 30. (96-OTI-9/18/57)</p>
 <p data-bbox="391 1176 483 1203">57-086</p>	<p data-bbox="683 903 846 930">PLU-57-086</p>	<p data-bbox="889 903 1576 1045">PLUMBBOB/DOPPLER - August 23, 1957 - NEVADA TEST SITE - The DOPPLER Event was conducted on August 23, 1957 at the Nevada Test Site. It was a ball test at 1500 feet with a yield of 11 kT. (XX-02)</p>
	<p data-bbox="683 1329 846 1356">PLU-57-087</p>	<p data-bbox="889 1329 1576 1612">PLUMBBOB/DOPPLER - August 23, 1957 - NEVADA TEST SITE -- The 13th test of Operation Plumbbob, named DOPPLER, is shown immediately after detonation at 5:30 a.m., PDT, from a balloon at an altitude of 1,500 feet. The cloud from DOPPLER, the 13th full - scale nuclear detonation of the Summer 1957 test series, is shown as it rose to an altitude of about 36,000 feet. (96-OTI)</p>




57-087		
 <p data-bbox="391 825 483 856">57-088</p>	PLU-57-088	<p>PLUMBBOB/DOPPLER - August 23, 1957 - NEVADA TEST SITE -- The cloud from DOPPLER, the 13th full scale nuclear detonation of the Summer 1957 test series, is shown as it rose to an altitude of about 36,000 feet. (9 OTI)</p>
 <p data-bbox="391 1255 483 1287">57-089</p>	PLU-57-089	<p>PLUMBBOB/FRANKLIN PRIME - August 30, 1957 - NEVADA TEST SITE -- The FRANKLIN PRIME E is detonated from a balloon in Yucca Flat at an altitude of 750 feet. (30-65 FPE 4B-3)</p>
 <p data-bbox="378 1675 496 1707">57-089C</p>	PLU-57-089	<p>PLUMBBOB/FRANKLIN PRIME - August 30, 1957 - NEVADA TEST SITE -- The FRANKLIN PRIME E is detonated from a balloon in Yucca Flat at an altitude of 750 feet. (30-65 FPE 4B-3)</p>

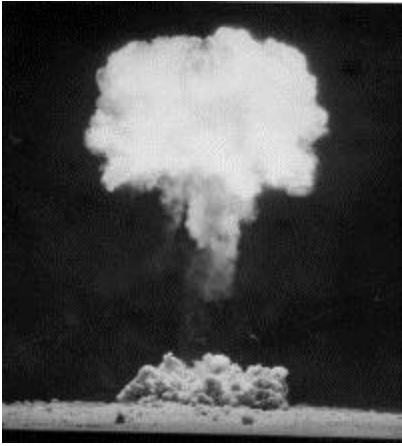
 <p data-bbox="391 751 483 779">57-090</p>	<p data-bbox="683 289 846 317">PLU-57-090</p>	<p data-bbox="891 289 1576 506">PLUMBBOB/FRANKLIN PRIME - August 30, 1957 NEVADA TEST SITE -- The cloud from FRANKLIN PRIME, 14th full-scale nuclear detonation of the Sum 1957 Test Series, rises to a height of about 30,000 feet. The well below nominal nuclear test was fired from a balloon at an altitude of 750 feet. (100-OTI)</p>
 <p data-bbox="391 1360 483 1388">57-091</p>	<p data-bbox="683 903 846 930">PLU-57-091</p>	<p data-bbox="891 903 1576 1119">PLUMBBOB/SMOKY - August 31, 1957 - NEVADA TEST SITE -- SMOKY, first atomic detonation from 700-foot tower, lights the north end of Yucca Flat at 5 a.m., PDT. The 15th full scale nuclear detonation of Operation Plumbbob was in the range of twice nominal. (102-OTI)</p>
 <p data-bbox="391 1764 483 1791">57-092</p>	<p data-bbox="683 1516 846 1543">PLU-57-092</p>	<p data-bbox="891 1516 1576 1612">PLUMBBOB/SMOKY - August 31, 1957 - NEVADA TEST SITE - SMOKY, was a 44 KT tower test. (XX-color)</p>

 <p>57-093</p>	<p>PLU-57-093</p>	<p>PLUMBBOB/GALILEO - September 2, 1957 - NEV. TEST SITE -- The 16th full-scale nuclear test of Operation Plumbbob is detonated on a 500 foot tower Yucca Flat. The nuclear test, code-named GALILEO, fired at 5:40 a.m., PDT, and was predicted to be in the range of about half-nominal in explosive force. (104-0)</p>
 <p>57-094</p>	<p>PLU-57-094</p>	<p>PLUMBBOB/GALILEO - September 2, 1957 - NEV. TEST SITE -- The cloud from the GALILEO Event c name for the 16th nuclear test in the Summer 1957 Se rises to about 37,000 feet after detonation at 5:40 a.m. PDT, from a 500 foot tower. (105-OTI)</p>
 <p>57-095</p>	<p>PLU-57-095</p>	<p>PLUMBBOB/WHEELER - September 6, 1957 - NEVADA TEST SITE -- The 17th atomic test of Operation Plumbbob, code named WHEELER, briefly lights Yucca Flat as it is detonated from a balloon at a height of 500 feet. (106-OTI)</p>

 <p>57-096</p>	<p>PLU-57-096</p>	<p>PLUMBBOB/WHEELER - September 6, 1957 - NEVADA TEST SITE -- WHEELER fireball, detonation on September 06, 1957 at the Nevada Test Site.</p>
 <p>57-097</p>	<p>PLU-57-097</p>	<p>PLUMBBOB/WHEELER - September 6, 1957 - NEVADA TEST SITE -- The WHEELER cloud, from 17th full scale nuclear detonation of the Summer 1957 series, rises above Yucca Flat shortly after shot-time at 5:45 a.m., PDT. (107-OTI)</p>
 <p>57-098</p>	<p>PLU-57-098</p>	<p>PLUMBBOB/LA PLACE - September 8, 1957 - NEVADA TEST SITE -- The fireball of the 18th nuclear test of Operation Plumbbob lights Yucca Flat shortly before sunrise. Fired at 6 a.m., PDT, the detonation, called LA PLACE is shown immediately after burning away the cables which anchored the nuclear test balloon 750 feet.</p>

 <p data-bbox="386 741 483 772">57-099</p>	<p data-bbox="678 289 849 321">PLU-57-099</p>	<p data-bbox="889 289 1580 468">PLUMBBOB/LA PLACE - September 8, 1957 - NEVADA TEST SITE -- The cloud from LA PLACE 18th full scale atomic detonation of the Summer 1957 series, begins to dissipate as it separates from the stem rises to a height of about 19,500 feet.</p>
 <p data-bbox="386 1176 483 1207">57-100</p>	<p data-bbox="678 896 849 928">PLU-57-100</p>	<p data-bbox="889 896 1580 1106">PLUMBBOB/FIZEAU - September 14, 1957 - NEVADA TEST SITE -- The 19th full-scale atomic detonation of Operation Plumbbob was fired at 9:45 a.m. PDT, from a 500-foot tower. FIZEAU, code name for the nuclear test, was observed from News Nob at a distance of about 35 miles. (AEC-57-4670)</p>
 <p data-bbox="386 1789 483 1820">57-101</p>	<p data-bbox="678 1337 849 1369">PLU-57-101</p>	<p data-bbox="889 1337 1580 1547">PLUMBBOB/FIZEAU - September 14, 1957 - NEVADA TEST SITE -- The cloud from FIZEAU, 19th nuclear test of the Summer 1957 test series, begins its ascent to a height of about 40,000 feet. The nuclear test was fired at 9:45 a.m., PDT, from a 500-foot tower in Yucca Flat. (AEC-57-5855)</p>

 <p data-bbox="391 569 483 600">57-102</p>	<p data-bbox="683 289 846 321">PLU-57-102</p>	<p data-bbox="889 289 1576 432">PLUMBBOB/FIZEAU - September 14, 1957 - NEVADA TEST SITE -- About an hour after shot-time at 9:45 a PDT, various levels of the FIZEAU cloud begin to dissipate over the Test Site. (AEC-57-5856)</p>
 <p data-bbox="391 999 483 1031">57-103</p>	<p data-bbox="683 722 846 753">PLU-57-103</p>	<p data-bbox="889 722 1576 932">PLUMBBOB/NEWTON - September 16, 1957 - NEVADA TEST SITE -- The fireball of the 20th full-scale nuclear detonation of Operation Plumbbob light: Yucca Flat shortly after 5:50 a.m. PDT. Code-named NEWTON, the device was suspended by a balloon at altitude of 1,500 feet.</p>
 <p data-bbox="391 1604 483 1635">57-104</p>	<p data-bbox="683 1155 846 1186">PLU-57-104</p>	<p data-bbox="889 1155 1576 1331">PLUMBBOB/NEWTON - September 16, 1957 - NEVADA TEST SITE -- The mushroom cloud produced by NEWTON, 20th full-scale atomic test of the Sumner 1957 series, is shown just before it separates from the ground and begins to move off the Test Site.</p>



57-105

PLU-57-105

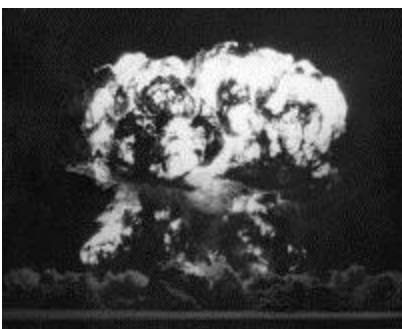
PLUMBBOB/NEWTON - September 16, 1957 - NEVADA TEST SITE -- The fireball of the 20th full-scale nuclear detonation of Operation Plumbbob lights Yucca Flat shortly after 5:50 a.m., PDT. Code-named NEWTON, the device was suspended by a balloon at altitude of 1,500 feet.



57-106

PLU-57-106

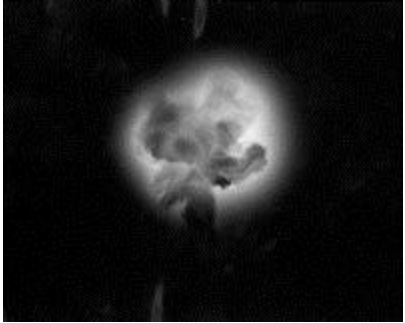

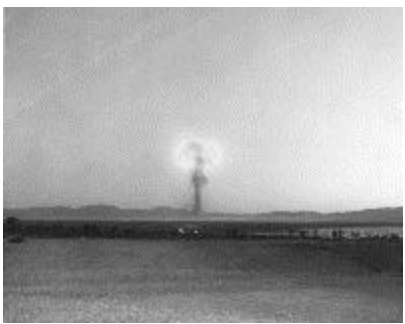

PLUMBBOB/RAINIER - September 19, 1957 - NEVADA TEST SITE -- RAINIER Event - Dust was raised both by a shock wave traveling to the surface on the side of the detonation and was also raised by rolling winds. Heat-created air currents raised the dust several hundred feet into the air. Monitors found no traces of radiation in this dust.








57-107

PLU-57-107

PLUMBBOB/WHITNEY - September 23, 1957 - NEVADA TEST SITE -- The fireball of the 22nd full-scale nuclear test of Operation Plumbbob lights the pre-dawn darkness of Yucca Flat. WHITNEY, code-named for the event, was detonated from a 500 foot tower at 5:30 a.m. PDT.

 <p>57-108</p>	<p>PLU-57-108</p>	<p>PLUMBBOB/WHITNEY - September 23, 1957 - NEVADA TEST SITE -- The early cloud of WHITNEY. Operation Plumbbob's 22nd atomic detonation, retaining ionization glow minutes after detonation. The mushroom cloud sheared cleanly from the stem before the cloud rose to a height of about 30,000 feet.</p>
 <p>57-109</p>	<p>PLU-57-109</p>	<p>PLUMBBOB/CHARLESTON - September 28, 1957 - NEVADA TEST SITE -- The fireball of the 23rd full-scale nuclear detonation of Operational Plumbbob lifted from Yucca Flat shortly after 6 a.m. PDT, on Saturday, September 28, 1957. Code-named CHARLESTON, the device was suspended by a balloon at a height of 1500 feet.</p>
 <p>57-110</p>	<p>PLU-57-110</p>	<p>PLUMBBOB/CHARLESTON - September 28, 1957 - NEVADA TEST SITE -- The cooling fireball of the CHARLESTON Event, the 23rd nuclear test of the 1957 series, is shown surrounded by ionization glow.</p>
	<p>PLU-57-111</p>	<p>PLUMBBOB/MORGAN - October 07, 1957 - NEVADA TEST SITE -- Fireball of the MORGAN Event, 24th in the final full-scale nuclear detonation of the Summer 1957 Nevada Test Series.</p>

57-111		
 <p data-bbox="391 642 483 674">57-112</p>	PLU-57-112	<p data-bbox="889 365 1576 510">PLUMBBOB/MORGAN - October 07, 1957 - NEVA TEST SITE -- The cooling fireball of the MORGAN Event, which concluded the Summer 1957 Nevada Te Series, is surrounded by ionization glow.</p>
 <p data-bbox="391 1251 483 1283">57-113</p>	PLU-57-113	<p data-bbox="889 791 1576 972">PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- Shot balloon, with dummy cab suspens & supporting cable in view, is shown at the beginning altitude run during experimental handling at the Neva Test Site.</p>
	PLU-57-114	<p data-bbox="889 1404 1576 1507">PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- Dummy cab attached, a shot balloon be the ascent during a test run at the Nevada Test Site</p>

57-114		
 <p data-bbox="391 825 483 856">57-115</p>	PLU-57-115	<p data-bbox="889 363 1578 510">PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- Crewmen are ready to attach the dummy cab in an experimental handling run at the Nevada Test Site</p>
 <p data-bbox="391 1434 483 1465">57-116</p>	PLU-57-116	<p data-bbox="889 972 1578 1119">PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- As the balloon nears inflation, a nylon line is let out & unfastened in an experimental handling at the Nevada Test Site</p>



57-117

PLU-57-117

PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- The balloon is nearly inflated, as a cameraman records the attachment of a dummy cab in experimental handling run at the Nevada Test Site. Inflation is accomplished by inserting a metal probe w thousands of holes into a plastic filler tube attached at bottom of the big balloon.



57-118

PLU-57-118

PLUMBBOB/SHOT BALLOON - 1957



57-119

PLU-57-119

PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE



57-120

PLU-57-120

PLUMBBOB/SHOT BALLOON - September 28, 1957 - NEVADA TEST SITE -- The shot balloon used in the detonation of CHARLESTON at the NEVADA TEST SITE on September 28, 1957. Here a test run experiment is being performed.



57-121

PLU-57-121

PLUMBBOB/SHOT BALLOON - 1957 - NEVADA
TEST SITE



57-122

PLU-57-122

PLUMBBOB/SHOT BALLOON - 1957 - NEVADA
TEST SITE



57-123

PLU-57-123

PLUMBBOB/SHOT BALLOON - January 30, 1957 - NEVADA TEST SITE -- The photograph above was at a firing area in Yucca Flat, Nevada Test Site, the morning of January 30, 1957, as Nevada Test Organization and Sandia Laboratory personnel began series of experiments to determine if anchored balloon may be used as detonation platforms for full scale nuclear tests. The tube-like extension of the balloon (lower rig is used to inflate it with helium.



57-124

PLU-57-124

PLUMBBOB/SHOT BALLOON - January 30, 1957 - NEVADA TEST SITE -- The photograph above was at a firing area in Yucca Flat, Nevada Test Site, the morning of January 30, 1957 as Nevada Test Organization and Sandia Laboratory personnel began a series of detonation platforms for full scale nuclear tests. The tube-like extension of the balloon (lower right) was used to inflate it with helium.



57-125

PLU-57-125

PLUMBBOB/SHOT BALLOON - January 30, 1957 - NEVADA TEST SITE -- The photograph was made at a firing area in Yucca Flat, Nevada Test Site, the morning of 1/30/57, as Nevada Test Organization and Sandia Laboratory personnel began a series of experiments to determine anchored balloons may be used as detonation platform for full-scale nuclear tests. The tube-like extension at the balloon (lower right) is used to inflate it with helium.



57-126

PLU-57-126

PLUMBBOB/SHOT BALLOON - January 30, 1957 - NEVADA TEST SITE -- The photograph was made at a firing area in Yucca Flat, Nevada Test Site, the morning of 1/30/57, as Nevada Organization & Sandia Lab personnel began a series of experiments to determine if anchored balloons may be used as detonation platforms for full-scale nuclear tests. The tube-like extension at the bottom (lower right) is used to inflate it with helium.



57-127

PLU-57-127

PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- Balloon handlers prepare to attach a dummy shot cab to a balloon in an experimental handling run at the Nevada Test Site



57-128

PLU-57-128

PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- Crewmen are ready to attach the dummy cab in an experimental handling run at the Nevada Test Site



57-129

PLU-57-129

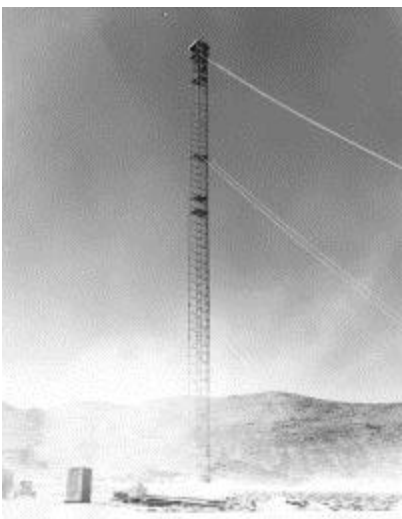
PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE -- Dummy cab attached, a shot balloon before its ascent during a test run at the Nevada Test Site



57-130

PLU-57-130




PLUMBBOB/SHOT BALLOON - 1957 - NEVADA TEST SITE

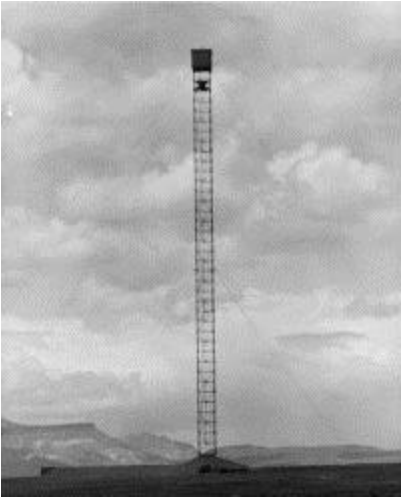
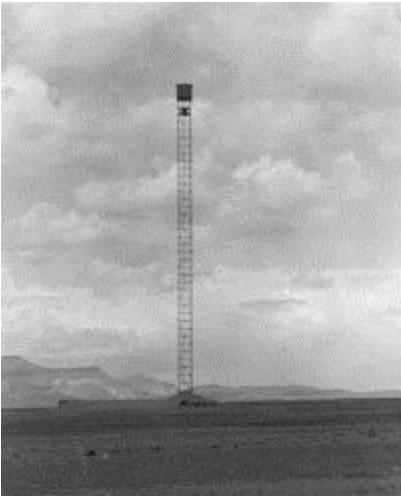






57-131




PLU-57-131


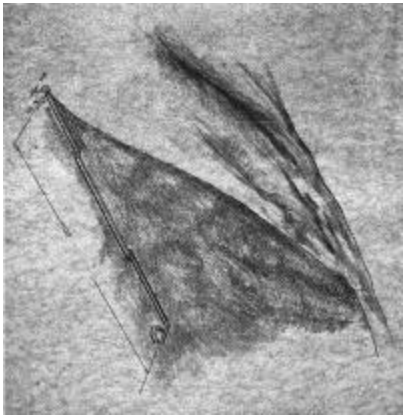

PLUMBBOB/TOWER - August 28, 1957 - NEVADA TEST SITE -- The 700 foot tower in Yucca Flat from which the SMOKY Event scheduled for 8/28/57 will be fired.

 <p data-bbox="386 569 483 600">57-132</p>	<p data-bbox="680 289 847 321">PLU-57-132</p>	<p data-bbox="889 289 1578 321">PLUMBBOB/TOWER - 1957 - NEVADA TEST SIT</p> <p data-bbox="889 325 1578 506">The tip of 700 foot tower, highest yet for an atomic te almost out of sight when viewed from its base. Showr about half way up is the elevator which features a new electro-magnetic system of control. The system elimin the need for trailing cable below the elevator.</p>
 <p data-bbox="386 1001 483 1033">57-133</p>	<p data-bbox="680 724 847 756">PLU-57-133</p>	<p data-bbox="889 724 1578 756">PLUMBBOB/TOWER - 1957 - NEVADA TEST SIT</p> <p data-bbox="889 760 1578 903">The SMOKY Event tower soars 700 feet into the air a Yucca Flat. First atomic test tower of this height, the structure may well be the tallest steel tower of its type The tower was designed by Holmes & Narver, Inc.</p>
 <p data-bbox="386 1608 483 1640">57-134</p>	<p data-bbox="680 1159 847 1190">PLU-57-134</p>	<p data-bbox="889 1159 1279 1190">PLUMBBOB/TOWER - 1957</p>

 <p>57-135</p>	<p>PLU-57-135</p>	<p>PLUMBBOB/TOWER - 1957 - NEVADA TEST SITE Eleven miles from News Nob, in Yucca Flat, Area 7, a 500 foot tower for Operation Plumbbob is ready for shot time. Fabricated by Self Manufacturing Co. Of Twin Falls, ID.</p>
 <p>57-136</p>	<p>PLU-57-136</p>	<p>PLUMBBOB/TOWER - 1957 - NEVADA TEST SITE Eleven miles from News Nob, in Yucca Flat, a 500 foot tower for Operation Plumbbob is ready for shot time. Fabricated by Self Manufacturing Co. Of Twin Falls, ID.</p>
 <p>57-137</p>	<p>PLU-57-137</p>	<p>PLUMBBOB/CAMP MERCURY - March 30, 1957 - NEVADA TEST SITE -- Aerial view of Camp Mercury and Desert Rock taken on 3/30/57.</p>

 <p>57-138</p>	<p>PLU-57-138</p>	<p>PLUMBBOB/SMOKY - August 31, 1957 - NEVADA TEST SITE -- The fireball from the SMOKY Event detonated at the Nevada Test Site on August 31, 1957</p>
 <p>57-139</p>	<p>PLU-57-139</p>	<p>PLUMBBOB/AIRSHIP - 1957 - NEVADA TEST SITE -- Navy air ship, ZSG-1, ties up at mooring platform in Yucca Flat, having just arrived from Lakehurst (NJ) Naval Air Station to prepare for tests during the FRANKLIN Event. High speed photography, lit by the glare of the fireball and flares, will record effects on the blimp.</p>
 <p>57-140</p>	<p>PLU-57-140</p>	<p>PLUMBBOB/CONTROL POINT - June 15, 1957 - NEVADA TEST SITE -- The Control Point of the Nevada Test Site as it appears from a nearby hillside. Structure left is main Control Point Building. Beyond is a heliport landing pad and the white expanse of Yucca (dry) Lake. Structure at right is Radiological Safety Building. Various trailers are mobile workshops of various types. News is off picture to left.</p>

 <p>57-141</p>	<p>PLU-57-141</p>	<p>PLUMBBOB/CONTROL ROOM - 1957 - NEVADA TEST SITE -- The control room within the main Cont Point building at Nevada Test Site This is the nerve ce of all nuclear test activities in Nevada. Operators sit a console panel in foreground. Here the sequence timer activated, and here a nuclear test can be turned off unt the last moment before it is fired. The shot balloon co is off picture to the right.</p>
 <p>57-142</p>	<p>PLU-57-142</p>	<p>PLUMBBOB/TUNNEL - September 19, 1957 - NEVADA TEST SITE -- Mouth of the tunnel in whic RAINIER deep underground nuclear test is scheduled be detonated at 10 a.m., Thursday, September 19, 195 The photograph was taken while construction on the tunnel still was in progress. Large pipe at left is part o blower system to supply fresh air to workmen in the tunnel.</p>
 <p>57-143</p>	<p>PLU-57-143</p>	<p>PLUMBBOB/TUNNEL - September 19, 1957 - NEVADA TEST SITE -- Pieces of weather rock dislc from the rim of the mesa rolled onto the road, which l from near the tunnel up the side of the mesa to the me top.</p>

 <p>57-144</p>	<p>PLU-57-144</p>	<p>PLUMBBOB/TOWER VIEW - 1957 - NEVADA TEST SITE -- View from the cab of the 700 foot tower from which the SMOKY device will be detonated at the Nevada Test Site. The tower, tallest structure in Nevada, is equivalent in height to a 70 story building. In left foreground are shelters to be tested for the French and German governments. On right side of the picture are military vehicles at varying distances from the tower, released for blast effects. The trench area from which military observers will view the nuclear test is 4,500 yards from the tower; the troop assembly area where the Atomic Pentomic exercise participants will be at shot time is 9 yards away, and News Nob is approximately 17 miles distant.</p>
 <p>57-145</p>	<p>PLU-57-145</p>	<p>PLUMBBOB/DRAWING - September 19, 1957 - NEVADA TEST SITE -- This is a schematic drawing of the tunnel in which the RAINIER deep underground nuclear test is scheduled for detonation at 10:00 a.m. Thursday, September 19, 1957. Length of the tunnel is about 2,000 feet. The hook at its end was designed so explosive force will seal off the non-curved portion of tunnel nearest the detonation before gases and fission fragments can be prevented around the curve of the tunnel's hook. Purpose of nuclear test is to contain a detonation and avoid producing fallout.</p>
 <p>57-146</p>	<p>PLU-57-146</p>	<p>PLUMBBOB/RAINIER TUNNEL - 1957 - NEVADA TEST SITE -- View of RAINIER Tunnel Entrance at Nevada Test Site</p>



57-147

PLU-57-147

PLUMBBOB/RAINIER TUNNEL - September 19, 1963
NEVADA TEST SITE -- Radiation Monitors are shown the mouth of the tunnel a few minutes after the RAINIER detonation. This view approximates a pre-shot view released yesterday.



57-148

PLU-57-148



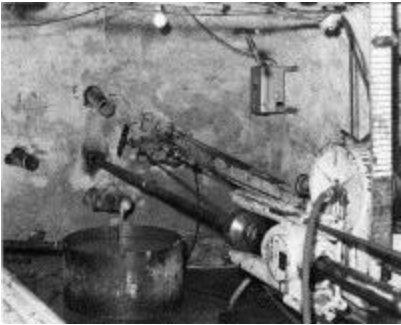

PLUMBBOB/RAINIER TUNNEL - September 19, 1963
NEVADA TEST SITE -- Post-shot view of a portion of the RAINIER tunnel not far from its entrance with ventilation duct (large pipe) and diagnostics cable rack left.









57-149




PLU-57-149



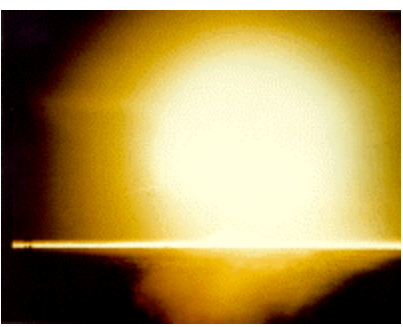

PLUMBBOB/RAINIER TUNNEL - September 19, 1963
NEVADA TEST SITE -- Diagnostic instruments in the Diagnostics Room in the RAINIER tunnel.


 <p>57-150</p>	<p>PLU-57-150</p>	<p>PLUMBBOB/GALILEO - September 2, 1957 - NEV. TEST SITE -- The fireball for the GALILEO Event detonated on September 2, 1957 during OPERATION PLUMBBOB.</p>
 <p>57-151</p>	<p>PLU-57-151</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Crew setting up a core drill, to recover a core sample from the shot area, in the room where the RAINIER Event tunnel now ends.</p>
 <p>57-152</p>	<p>PLU-57-152</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- View the core drill in operation at the drilling face in the Diagnostics Room in the RAINIER tunnel.</p>
	<p>PLU-57-153</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- A core sample from the RAINIER Event area is monitored for radioactivity in the room where the tunnel now ends. Previous core samples are shown in the box at left.</p>




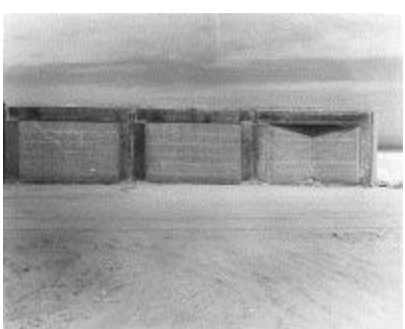
57-153		
 <p data-bbox="391 821 483 852">57-154</p>	PLU-57-154	<p>PLUMBBOB - September 19, 1957 - NEVADA TEST SITE - RAINIER EVENT -- A close up of radiation monitors checking the air at the mouth of the tunnel a minutes after this morning's detonation. The monitors found no trace of radiation here or, subsequently, with the first two sections of the tunnel.</p>
 <p data-bbox="391 1255 483 1287">57-155</p>	PLU-57-155	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Face the mesa at the northern edge of Yucca Basin in which deep underground test (RAINIER Event) is scheduled be detonated at 10 a.m. Thursday, September 19, 1957. Ground zero will be about 800 feet from the top of the mesa, and about 800 feet from the outside slope of the mesa. The long white diagonal slash is a road to the mesa.</p>
 <p data-bbox="391 1703 483 1734">57-156</p>	PLU-57-156	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- This the scene from the mesa top over the tunnel which the RAINIER underground detonation is now scheduled to be fired at 10 a.m. Thursday, September 19. The forward observation post is about two and half miles from the tunnel mouth. The temporary Control Point is to the right of the area pictured and about ten miles distant from the tunnel.</p>




 <p>57-156a</p>	<p>PLU-57-156</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- This the scene from the mesa top over the tunnel which the RAINIER underground detonation is now scheduled to be fired at 10 a.m. Thursday, September 19. The forward observation post is about two and half miles from the tunnel mouth. The temporary Control Point is to the right of the area pictured and about ten miles distant from the tunnel.</p>
 <p>57-157</p>	<p>PLU-57-157</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Third line of home shelters measured under atomic blast by Civil Effects Test Group of the Nevada Test organization. The shelter was designed by the Federal Civil Defense Administration to withstand pressures of about 30 pounds per square inch. An underground protective chamber measures about 7 feet square, excluding an entrance corridor, and is 6 feet high. The corridor, with two right angle bends, connects the chamber with the entrance hatch, an inclined ladder with a steel plate door. All the shelters have an emergency escape hatch in the rear.</p>
 <p>57-158</p>	<p>PLU-57-158</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Family type shelter sponsored by the Federal civil Defense Administration. Three steel reinforced concrete shelters with earth covering will be tested at pressure ranges of from 30 to 65 pounds per square inch (psi). Hal J. Jennings, Shelter Program Director for the Civil Effects Group of the Nevada test Organization, is shown in the entranceway. At left, atop the shelter, is the air-intake pipe. At the right, is the air exhaust pipe. A radio antenna will be located in the center portion, where wooden forms are shown ready for the pouring of concrete base for the installation.</p>

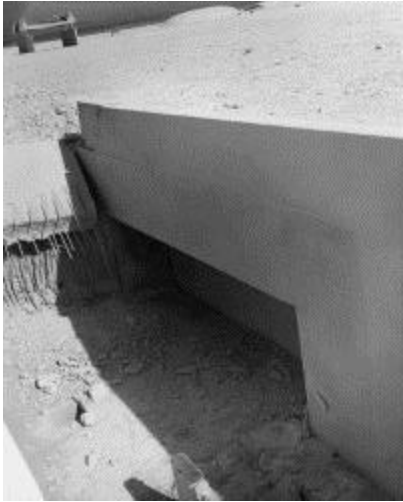


 <p>57-159</p>	<p>PLU-57-159</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Rear view of a family-type shelter designed by the Federal Defense Administration. 3 steel reinforced concrete shelters with earth covering will be tested at pressure ranges of from 30 to 65 pounds per square inch (psi). escape hatch is shown, with cover in place. Above it is an air exhaust pipe, to the right is the tip of the air-intake pipe. The object in the center is not part of the shelter.</p>
 <p>57-160</p>	<p>PLU-57-160</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Rear view of steel-reinforced concrete home shelter design by Federal Civil Defense Administration. A temporary steel cover for the escape hatch (bottom) was blown off and the passageway partially filled with dirt. Exit through the passageway can be accomplished, however. Removal of another door, which I designed to protect the interior against blast and radiation, at the bottom of the escapeway, plus the angle of the pipe, would drop the debris into the underground room, permitting exit for occupants.</p>
 <p>57-161</p>	<p>PLU-57-161</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- This steel-reinforced concrete shelter was designed and located for testing under an approximate pressure of 65 pounds per square inch. The steel plate door, hinged at the bottom to help prevent blockage by debris, is undamaged. The door is fastened by bolts and can be opened from either side. Venting and other exterior features were not being tested under the Civil Effects test Group project.</p> <p>Members of the camera crew (above) entered the area several days after the nuclear test. The special equipment shown is worn for personal protection against any possible radiation. All Nevada Test Site employees, who enter radioactive areas are required to wear such equipment.</p>




 <p>57-162</p>	<p>PLU-57-162</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Hom Shelter.</p>
 <p>57-163</p>	<p>PLU-57-163</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Hom Shelter.</p>
 <p>57-164</p>	<p>PLU-57-164</p>	<p>PLUMBBOB/LA PLACE - September 8, 1957 - NEVADA TEST SITE -- Fireball from LA PLACE E detonated at the Nevada Test Site on September 8, 1957.</p>
	<p>PLU-57-165</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Dome structure, third in line, was located to stand up to side-overpressure of about 20 pounds per square inch. Designed by American Machine and Foundry Company the structure was tested by a recent atomic test. AM&F proposes the steel-reinforced concrete dome as basic design for a national shelter program. These structures 50 feet in diameter but could be expanded to 150 feet.</p>



57-165		<p>diameter, or more, to provide mass shelter. Construction of the six-inch constant thickness shell is relatively simple. Mounds of earth of the required size are formed and the surface hardened by the shotcrete method to form the inside surface. The foundation is installed and a web of reinforcing rods is formed over the shell. This surface then is covered with a constant six-inch thickness of concrete. After the concrete has hardened, the earth is removed, leaving shelter space under the dome. A temporary steel hatch covered the entrance (to the rear of view), but a prototype full-scale door for a dome shelter of about 150-foot diameter was tested independently by AM&F. A final test report on the three structures will be prepared for CETG and FCDA by AM&F.</p>
 <p>57-166</p>	PLU-57-166	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Dome type structures, larger than the one shown in the foreground above, have been proposed as an effective economical means of providing mass shelter. Under Federal Civil Defense Administration auspices, three dome shelters, 50 feet in diameter, will undergo nuclear blast at approximate overpressure ranges of from 20 to 100 pounds per square inch (psi). The reinforced concrete domes, of six-inch constant shell thickness, will be exposed to blast without the aid of earth cover. FCDA engineers decided the 50 foot diameter structure (above) was adequate for preliminary tests, eliminating the expense of a 150 ft. structure. A temporary steel door closed off the structure. A full-size, prototype steel shelter door, designed to close off a dome shelter of about 150 ft. in diameter, will be tested independently. The trenches on the right have no relationship to the shelter, being cable trenches.</p>

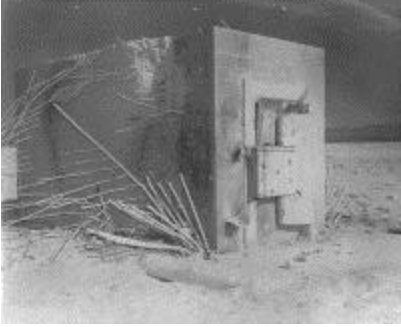
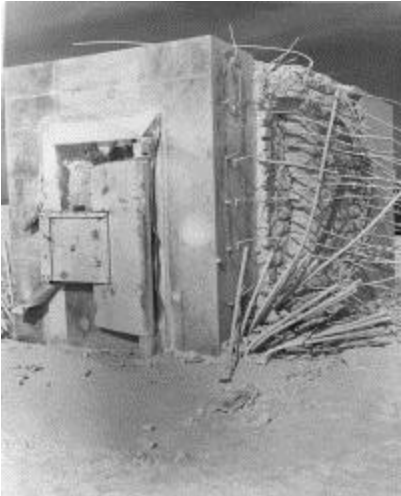
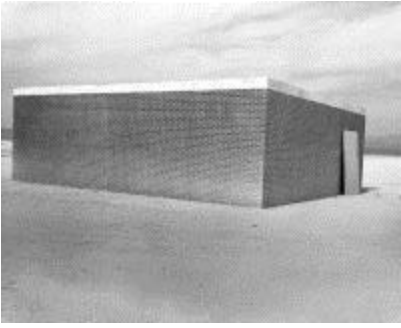
 <p>57-167</p>	<p>PLU-57-167</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- One three concrete domes tested by a recent atomic detona American Machine and Foundry, under FCDA auspice designed the structures for experiments to determine l response and mode of failure under atomic blast. The domes were designed and located for tests of pressure ranging from about 20 to 70 pounds per square inch. Instrumentation was conducted by Ballistic Research Laboratories and the Armour Research Foundation.</p>
 <p>57-168</p>	<p>PLU-57-168</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- This dome structure was expected to fail under the stress o high overpressures. American Machine and Foundry Company designed three of the structures under FCD/ auspices. They were subjected to overpressures at sev ranges to obtain engineering design data for use in fut mass shelter designs. Radiation monitor (right) for the camera crew indicates the size of the structure.</p>
 <p>57-169</p>	<p>PLU-57-169</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- One three concrete domes tested by a recent atomic detona American Machine and Foundry, under FCDA auspice designed the structures for experiments to determine l response and mode of failure under atomic blast. The domes were designed and located for tests of pressure ranging from about 20 to 70 pounds per square inch. Instrumentation was conducted by Ballistic Research Laboratories and the Armour Research Foundation.</p>
	<p>PLU-57-170</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Thre wall panels of brick and other clay products are showi after being tested by one of the nuclear detonations se during Operation Plumbbob. Designed by the Structu Clay Products Research Foundation, the panel on the is a 12-inch thick solid brick wall without reinforcem The center panel is 12-inch thick solid brick reinforce</p>

57-170		with one-quarter inch steel rods. The panel on the right four-inch thick brick backed by eight-inch thick tile.
 <p data-bbox="388 680 482 711">57-171</p>	PLU-57-171	<p data-bbox="889 401 1576 617">PLUMBBOB - 1957 - NEVADA TEST SITE -- Automobile ramp leading down to entrance of the underground dual-purpose garage and mass shelter, sponsored by the Federal Civil Defense Administration. The structure will be tested at a pressure range of about 100 psi (pounds per square inch).</p>
 <p data-bbox="388 1110 482 1142">57-172</p>	PLU-57-172	<p data-bbox="889 833 1576 1155">PLUMBBOB - 1957 - NEVADA TEST SITE -- Automobile ramp leading down to dual-purpose underground garage designed by Ammann and Whitney Consulting Engineers under the sponsorship of the Federal Civil Defense Administration, is undamaged by the force of an atomic detonation. A reinforced concrete retaining wall just outside the entrance to the garage-mass shelter structure has been partially dislodged, but does not interfere with operation of the door.</p>
 <p data-bbox="388 1730 482 1761">57-173</p>	PLU-57-173	<p data-bbox="889 1274 1576 1415">PLUMBBOB - 1957 - NEVADA TEST SITE -- Cracks in the roof of the entryway to a West German shelter and debris littering the stairway did not materially affect access to the shelter after the August 31, 1957 atomic</p>


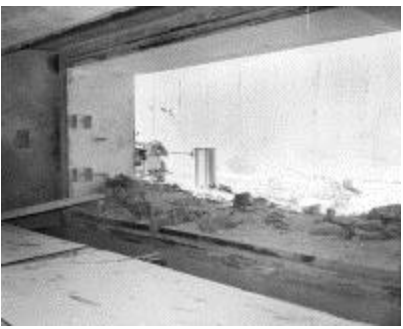

 <p>57-174</p>	<p>PLU-57-174</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Close-up view of entrance to dual-purpose underground garage and mass shelter, sponsored by the Federal Civil Defense Administration under the Nevada Test Organization's Civil Effects Test Program. The retaining wall (left) has been partially dislodged, but does not interfere with operation of the massive door leading to the 90-foot square underground room. The underground structure, designed by Ammann and Whitney Consulting Engineers and covered by about three feet of earth, was planned and located to stand up to pressures of about 30 pounds per square inch.</p>
 <p>57-175</p>	<p>PLU-57-175</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- The reinforced concrete blast door for the dual-purpose garage and mass shelter, sponsored by the Federal Civil Defense Administration, is shown at left. The view, looking outward, shows the front part of the door, which is four feet thick and weighs about 100 tons. The massive door is mounted on a monorail (not shown). The dark tubing around the edge of the door frame is a sealing gasket, imbedded in a metal groove. When the door is shut the gasket inflates automatically to form an air-tight closure.</p>
 <p>57-176</p>	<p>PLU-57-176</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Interior view of the dual-purpose garage and mass shelter, sponsored by the Federal Civil Defense Administration showing two of the three rows of support columns. Radiation dosimetry and other instrumentation will be installed in the huge room which is approximately 90 feet square. The shelter was designed as a segment of a dual-purpose structure, and could be expanded to any desired size. It is under three feet of earth, with a reinforced concrete roof slab two feet, six inches thick. The structure could be used as an underground garage in peacetime and converted to use as a shelter in time of emergency.</p>

 <p>57-177</p>	<p>PLU-57-177</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- The underground chamber of a dual purpose structure, designed by Amman & Whitney Consulting Engineer a part of FCDA's participation in the Civil Effects Test Group program, was undamaged by a recent atomic detonation. The huge room, about 90 ft. square, can be used either as an underground garage or as a mass shelter. Two of the 3 rows of massive columns which support a reinforced concrete roof slab 2' 6" thick are shown. Radiation dosimeters have been removed from the interior. The structure is designed to be expanded to any desired size.</p>
 <p>57-178</p>	<p>PLU-57-178</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- A full size steel door, designed as closure for a dome-type shelter of about 150 ft. diameter, will be tested for 35 pounds per square inch side-on overpressure. The prototype door, sponsored by the Federal Civil Defense Administration, is shown in closed position. Operated in the same fashion as a drawbridge, the door drops down into its specially formed concrete bed, serving as a road or walkway into the shelter. Hinged at the bottom, the door can be designed for manual or power operation.</p>
 <p>57-179</p>	<p>PLU-57-179</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Circular shelter, sponsored by the West German Government, is being tested under an atomic detonation in Yucca Flat late August. Shown just before the concrete pour over the formwork, the shelter is about 50 percent complete. The stack in foreground contains an air exhaust pipe and the emergency exit, a steel ladder embedded in concrete. In the foreground is the leading edge of a concrete pad forming the base of the shelter. The main entrance and air intake pipe will be located at the far end of the shelter. Inside diameter of the steel-reinforced concrete shelter is eight feet, two and one-half inches, with a wall thickness of one foot, four inches. Over-all length of the structure which will accommodate up to 50 people, is 44 feet, six and one-half inches. It is covered with five feet, three</p>




		<p>inches of earth. The Federal Civil Defense Administration is cosponsor of the program, which includes a second circular shelter and seven rectangular shelters. They are designed and located for testing at pressures ranging from approximately seven to about 260 pounds per square inch. Ammann & Whitney Consulting Engineers, of New York City, is the agent and technical consultant for the program. The structures were built by Sierra Construction Company of Las Vegas, Nevada.</p>
 <p>57-180</p>	<p>PLU-57-180</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Interior of one of the three home shelters, all undamaged, which were tested by a recent atomic detonation during Operation Plumbbob. The chamber is 6 feet high and measures about 7 feet square, excluding an entrance corridor (shown to left in picture), which contains shelving space. The corridor, with two right angle turns, connects the chamber with an entrance hatch. All three shelters have an emergency escapeway (not shown) in the rear.</p>
 <p>57-181</p>	<p>PLU-57-181</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- This prototype shelter door, designed by American Machine and Foundry Company, was relatively undamaged by recent atomic test. This blast however, removed a steel flange from the right side of the door, and ripped away the end of a steel flange on the left side. Technicians of the Civil Effects Test Group, NTO say the door, which was designed and located for testing at a pressure of about 260 pounds per square inch, could be used as it stands. The full-size drawbridge type door is designed as closure for a dome-type shelter of about 150-foot diameter. The door shown in closed position, drops into its specially fitted concrete bed, and serves as a road or walkway into the shelter. It can be fitted for manual or power operation.</p>

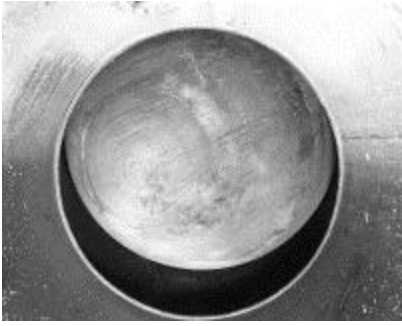
 <p>57-182</p>	<p>PLU-57-182</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Mosler Safe Company's standard safe door and reinforced concrete vault is shown after a recent atomic test. It was designed and located for testing at a side-on overpressure of about 75 pounds per square inch. Trim on the steel door, facing ground zero, was loosened by the blast, but the operation of the massive steel closure was not impaired. Slabs of reinforced concrete, added to the sides of the steel-lined vault after the latter had been constructed, were ripped off. Mosler's vault is 11 feet high, 10 feet wide and 17 feet long. The project is part of the CETG-FCDA program of continuing research on protection of vital records and valuables.</p>
 <p>57-183</p>	<p>PLU-57-183</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Mosler Safe Company's standard safe door and reinforced concrete vault is shown after a recent atomic test. It was designed and located for testing at a side-on overpressure of about 75 pounds per square inch. Trim on the steel door, facing ground zero, was loosened by the blast, but the operation of the massive steel closure was not impaired. Slabs of reinforced concrete, added to the sides of the steel-lined vault after the latter had been constructed, were ripped off. Mosler's vault is 11 feet high, 10 feet wide and 17 feet long. The project is part of the CETG-FCDA program of continuing research on protection of vital records and valuables.</p>
 <p>57-184</p>	<p>PLU-57-184</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- This windowless modular structure, developed by the Structural Clay Products Research Foundation, of Geneva, Illinois, was undamaged by one of Operation Plumbbob's atomic tests. The walls of the 32 by 28 foot building consist of two layers of brick with reinforcing steel in the center forming a thickness of 10 inches. The flat roof is of reinforced concrete. Displacement and deflection-time measuring instruments detected a detected a temporary displacement in the wall facing ground zero of about a quarter inch at the time of detonation. (NTC Lookout)</p>

		Mountain Lab Photo (61-OTI 6/29/57)
<div data-bbox="235 281 638 611" data-label="Image"> </div> <div data-bbox="386 648 483 682" data-label="Caption"> <p>57-185</p> </div>	<div data-bbox="678 363 846 394" data-label="Text"> <p>PLU-57-185</p> </div>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Two of five doors formed of standard commercial material were tested by the Federal Civil Defense Administration during a recent atomic test. At a high pressure range, but one of the doors satisfactorily withstood the blast. door was ripped out of its frame, and the surface of all them was scorched and blackened by the thermal wave. From left to right, the doors are: (1) A solid plywood door; (2) A wood plank door made of a single layer of horizontal 2-inch x 4-inch lumber; (3) Cellular steel door formed of commercial sheet steel Q-panels set in and welded to a rolled steel channel frame; (4) A hollow plywood door which was blown out of its frame into the test shell; and (5) A steel plate door fabricated by welding an outer panel of one-quarter-inch thick steel plate and an inner cover of 20-gauge steel to a steel angle frame stiffened with horizontal steel T-bars. Hardware and framing for all doors at this range stood up to the force of the blast. Contractor for the project was Richards-Wilcoxon.</p> <p>Objects on the wall of the building are installations for testing three anti-blast valves for shelter ventilation openings. Pressure gauges on the front of the test assembly have been removed. All three of the valves successfully operated during the test. Left is a 16-inch valve, the center valve is 24-inches in diameter and the right is a 16-inch anti-blast valve operated by remote control. The other valves were activated by the pressure of the blast wave. The valve assembly includes an insect screen. Such valves are designed to operate blast resistant closures in protective structures in order to avoid injury to occupants and damage to filters and other shelter equipment in the event of nuclear explosions. The test was set up to obtain designs for rugged, reliable and quick acting blast valves. (NTO Lookout Mountain Laboratory Photo 64-OTI 6/29/57)</p>

 <p>57-186</p>	<p>PLU-57-186</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- A reatomic test during Operation Plumbbob tested the sec of two sets of five doors, sponsored by the Federal Ci Defense Administration. Pressure waves at low range: slightly blackened the paint finish on the two steel do The three wooden doors were partially charred. All of doors, the frames and the extra heavy steel commerc hardware stood up under the test. Left to right, the do were made of (1) solid plywood, (2) wood planking, (cellular steel formed of sheet Q-panels, (4) hollow plywood, and (5) steel plate. Two anti-blast valves -- inch diameter (left) and 24-inch diameter -- are moun on the wall. Automatically activated by the pressure v the valves operated satisfactorily.</p>
 <p>57-187</p>	<p>PLU-57-187</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- The ton blast door for the underground garage-mass shelte been rolled back on its monorail, undamaged by a rec atomic detonation. Debris from a retaining wall, loose by the blast, and the sandbags in the foreground do nc interfere with operation of the four-feet-thick reforc concrete door. Air-tight closure of the door is effected an inflated rubber gasket which fits in a metal groove running around the inside of the door frame.</p>
 <p>57-188</p>	<p>PLU-57-188</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- One nine shelters, sponsored by the West German Govern to be tested by nuclear detonation in late August. The shelter shown above is about 40 percent complete, bei ready for concrete pour over the formwork after installation of reinforcing steel. The main room with a capacity of 25 people is separated from the decontamination chamber (left) by an air-tight door. A left foreground is the location for a stairwell and main blast door. The shelter over-all is nine feet, 10 inches wide, 21 feet long, and seven feet, six and one-half in high. Its walls and roof are two feet thick, and it is co with four feet of earth. The ventilation stack and an emergency exit are in the background. The West Cam</p>

		<p>shelter program is co-sponsored by the Federal Civil Defense Administration, with Ammann & Whitney Consulting Engineers, of New York City, serving as a and technical consultant.</p>
<div data-bbox="237 401 636 716" data-label="Image"> </div> <div data-bbox="386 751 483 787" data-label="Caption"> <p>57-189</p> </div>	<p>PLU-57-189</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- The conduit-like structure above is one of two complete shelters sponsored by the French Government under a Civil Effects Test Group project scheduled for late August. The circular shelter, shown when it was about percent complete, can accommodate 32 people. Design for expansion, the main tube is made up of precast reinforced concrete rings, shipped to the Nevada Test from France. The circular section is 16 and one-half feet long, inside diameter is seven feet, two and one-quarter inches, and the steel-reinforced walls are 10 inches thick. The pipe in the foreground at left is the air-intake stack of the ventilating system, which is being tested for blast and radiation effects. In the background at left is the main entrance to the shelter. Entry is gained through a horizontal sliding door leading to a steel ladder which spirals down 12 feet to the floor of the shelter. The incomplete structure at the other end of the tube on the right contains the exhaust system and an emergency exit. The structure has been covered with four feet, nine inches of earth.</p>
<div data-bbox="237 1276 636 1598" data-label="Image"> </div> <div data-bbox="386 1640 483 1675" data-label="Caption"> <p>57-190</p> </div>	<p>PLU-57-190</p>	<p>PLUMBBOB - 1957 - NEVADA TEST SITE -- Above ground features of the French rectangular shelter, which is scheduled for testing in Yucca Flat late in August. In the foreground to left and right are stairwell openings leading down to a steel blast door. The flat object in the center foreground contains an automatic sand filter system designed to remove radioactive fallout particles from the air. Air-intake stack and two exhaust stacks are shown to the right of the Sand filter. The shelter, designed to resist pressures of about 130 pounds per square inch, contains two rooms with a capacity of 50 persons and space for sanitary facilities. Inside width of the shelter is nine feet, 10 inches, with a height of seven and a half feet, and an overall length of forty-two feet, eight inches. The</p>

		walls are two feet thick, and there is a four-foot earth covering.
 <p>57-191</p>	PLU-57-191	PLUMBBOB - 1957 - NEVADA TEST SITE -- The : pound steel blast door of a West German sponsored sl still opened easily after withstanding the blast of SMC August 31, 1957 nuclear detonation. The door is of cu plate construction so that blast loadings on the concla plate forced exposed tubular members to absorb compressive forces. A sponge rubber gasket provides tight closure for the door.
 <p>57-192</p>	PLU-57-192	PLUMBBOB - 1957 - NEVADA TEST SITE -- Inter of a West German circular shelter is intact and habital following SMOKY, the August 31, 1957 detonation.
 <p>57-193</p>	PLU-57-193	PLUMBBOB - 1957 - NEVADA TEST SITE -- TOW FROM SHELTER - This view from the underground entrance to a French rectangular shelter shows a 700' tower which will support a nuclear device to be deton sometime in August. Two shelters and three entrance sponsored by the French Government and Federal Civ Defense Administration, will be tested under a Civil Effects Test Group project during Operation Plumbbo Ammann & Whitney Consulting Engineers, of New Y City, and Holmes and Narver, Inc., supervised construction of the shelters by Sierra Construction Co tower was designed by Holmes and Narver.



57-194

PLU-57-194

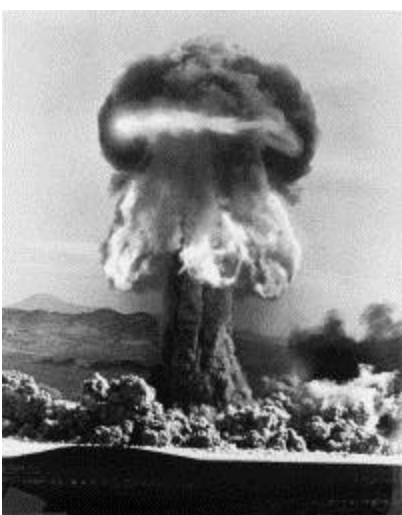
PLUMBBOB - 1957 - NEVADA TEST SITE -- Hollow steel ball serves as a blast valve for the ventilating system in the French rectangular shelter to be tested late in August. This view of the ball, which can be moved easily from the main shelter chamber, looking through a small air intake tube, large enough to seat a person of average size. About three feet in diameter and slightly larger than the tube, the steel ball is set in an over-size spherical chamber at the end of a pipe leading from an automatic ventilating device. The ball is designed to be forced by blast into the tube opening in order to seal off the ventilating system during the first few moments after detonation. As the pressure of the shock wave decreases the ball will drop back into place, permitting normal operation of the ventilating system.



57-195

PLU-57-195




PLUMBBOB - 1957 - NEVADA TEST SITE -- Exhaust and air-intake stacks for ventilators of the French rectangular shelter were toppled by the force of the SMOKY nuclear detonation of August 31, 1957. The shelter was designed so postblast ventilation would enter through the low structure, which remained intact. Other than some chipping and cracking of exterior features, the shelter remained operable after the blast.



57-212

PLU-57-212

PLUMBBOB/PRISCILLA - June 24, 1957 - NEVADA TEST SITE -- The PRISCILLA Test, conducted at the Nevada Test Site, June 24, 1957, was a 37-kiloton device exploded from a balloon. (Black and white copy of X-12)

 <p data-bbox="386 569 488 600">NF-250</p>	<p data-bbox="711 289 816 321">NF-250</p>	<p data-bbox="889 289 1576 468">PLUMBBOB/PRISCILLA - June 24, 1957 - NEVADA TEST SITE -- The 37 KT PRISCILLA Test in 1957 destroyed this railroad bridge that was 1,800 feet from ground zero and received overpressures exceeding 45 psi, severely distorting the interior structural girders.</p>
 <p data-bbox="386 968 483 999">57-211</p> <p data-bbox="386 1041 488 1073">XX-001</p>	<p data-bbox="678 720 849 825">PLU-57-211/ XX-01</p>	<p data-bbox="889 720 1576 856">PLUMBBOB/STOKES - 1957 - NEVADA TEST SITE (PLU-57-211/XX-001) STOKES Event, in the Plumb Series, was a balloon test fired at 1500 feet with a yield of 19KT.</p>
 <p data-bbox="386 1444 488 1476">XX-002</p>	<p data-bbox="719 1192 808 1224">XX-02</p>	<p data-bbox="889 1192 1576 1329">PLUMBBOB/DOPPLER - August 23, 1957 - NEVADA TEST SITE -- Code names DOPPLER, the test was conducted on August 23, 1957 at the Nevada Test Site was a balloon shot at 1500-feet with a yield of 11 kt.</p>
 <p data-bbox="386 1848 488 1879">XX-003</p>	<p data-bbox="719 1596 808 1627">XX-03</p>	<p data-bbox="889 1596 1576 1732">PLUMBBOB/HOOD - July 5, 1957 - NEVADA TEST SITE -- The HOOD Test, conducted at the Nevada Test Site on July 5, 1957, was a 74-kiloton device exploded on a balloon.</p>



XX-010

XX-10

PLUMBBOB/PRISCILLA - June 24, 1957 - NEVADA TEST SITE -- The PRISCILLA Test, conducted at the Nevada Test Site, June 24, 1957, was a 37 KT device exploded from a balloon.



XX-012

XX-12





PLUMBBOB/PRISCILLA - June 24, 1957 - NEVADA TEST SITE -- The PRISCILLA Test, conducted at the Nevada Test Site, June 24, 1957, was a 37-kiloton device exploded from a balloon.


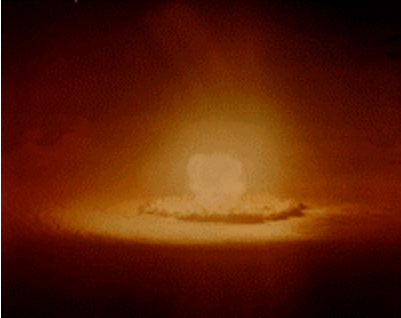




XX-014

XX-14

PLUMBBOB/FIZEAU - September 14, 1957 - NEVADA TEST SITE -- FIZEAU was a 11-kiloton tower test fired September 14, 1957 at the Nevada Test Site

 <p>XX-015</p>	<p>XX-15</p>	<p>PLUMBBOB/DIABLO - July 15, 1957 - NEVADA TEST SITE -- DIABLO was fired on July 15, 1957, at the Nevada Test Site from a 500 foot tower. It had a yield of 17-kilotons.</p>
 <p>XX-016</p>	<p>XX-16</p>	<p>PLUMBBOB/CHARLESTON - September 28, 1957 - NEVADA TEST SITE -- The CHARLESTON Event was a balloon test fired at 1500 feet with a yield of 12 KT.</p>
 <p>XX-030</p>	<p>XX-30</p>	<p>PLUMBBOB/JOHN - July 19, 1957 - NEVADA TEST SITE -- An air-to-air missile nuclear test code-named JOHN and fired on 7/19/57 as a part of the Plumbbob Series.</p>
 <p>XX-040</p>	<p>XX-40</p>	<p>PLUMBBOB/BOLTZMANN - May 28, 1957 - NEVADA TEST SITE -- BOLTZMANN was a 12-kiloton shot fired from a tower on the Nevada Test Site May 28, 1957. The BOLTZMANN Event was part of Operation Plumbbob.</p>

 <p data-bbox="386 562 487 594">XX-041</p>	<p data-bbox="719 289 805 321">XX-41</p>	<p data-bbox="891 289 1565 352">PLUMBBOB/WILSON - June 18, 1957 - NEVADA TEST SITE -- WILSON Event fireball.</p>
 <p data-bbox="386 993 487 1024">XX-063</p>	<p data-bbox="719 714 805 745">XX-63</p>	<p data-bbox="891 714 1576 819">PLUMBBOB/BOLTZMANN - May 28, 1957 - NEV. TEST SITE -- BOLTZMANN fireball, May 28, 1957. photographed 11 miles from ground zero.</p>
 <p data-bbox="386 1402 487 1434">XX-064</p>	<p data-bbox="719 1144 805 1176">XX-64</p>	<p data-bbox="891 1144 1576 1249">PLUMBBOB/SMOKY - August 31, 1957 - NEVADA TEST SITE -- Operation Plumbbob, SMOKY weapon related tower test.</p>
 <p data-bbox="386 1816 487 1848">XX-070</p>	<p data-bbox="719 1558 805 1589">XX-70</p>	<p data-bbox="891 1558 1576 1621">PLUMBBOB/SMOKY - August 31, 1957 - NEVADA TEST SITE -- SMOKY Event detonated.</p>

